

Golden Valley Ranch

Mohave County 208 Plan Amendment

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Mohave County, Arizona

July 6, 2006



A Stanley Group Company
Engineering, Environmental and Construction Services - Worldwide

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Executive Summary

Golden Valley Ranch (GV Ranch) is a mixed use, master planned development by Rhodes Homes Arizona (Rhodes). This development is located approximately 5 miles west of the western boundary of Kingman, Arizona in Mohave County, in an area known as "Golden Valley". The Mohave County 208 Plan approved in December 2003 does not account for this development in terms of population increase or wastewater infrastructure, so an amendment to the 208 plan is required. Mohave County is the Designated Planning Agency (DPA) for this process. Rhodes has filed an application with the Arizona Corporation Commission (ACC) to create private water (Perkins Mountain Water Company) and sewer (Perkins Mountain Utilities Company, or PMUC) companies to serve the development. There is no Designated Management Agency (DMA) for this project.

The GV Ranch plan includes the use of interim and permanent Waste Water Treatment Plants (WWTPs) to treat wastewater to Class A+ reuse standards, as defined in the Arizona Administrative Code. GV Ranch plans to use the effluent from both WWTPs to water the development's planned golf course and other green space/green belt amenities. Excess effluent will be discharged into tributaries of Thirteen Mile Wash in accordance with an applicable AZPDES discharge permit. The development schedule indicates that the interim WWTP will be sized for a capacity of 240,000 gpd, with the permanent WWTP sized for 9.4 mgd at GV Ranch buildout.

Construction of the interim WWTP will provide a Phase 1, sub-phase 1 capacity of 240,000 gpd in one construction phase. Membrane bioreactor technology will be used for the interim WWTP. The permanent WWTP's first construction phase will provide 1 mgd of treatment to GV Ranch. It is scheduled to be brought on-line prior to the interim WWTP reaching 80% of capacity. When the permanent WWTP comes on-line, the interim WWTP will be taken out of service and relocated to other Rhodes developments. Any elements of the interim WWTP that must remain on-site will be demolished or abandoned in place such that the property can be returned to the adjacent parkland condition. Sequencing Batch Reactor (SBR) technology is proposed for the permanent WWTP's first two phases, with a technology re-evaluation scheduled prior to phase three design.

Rhodes is privately financing the construction of the WWTPs. PMUC will own and operate the sewer utility of GV Ranch upon construction completion of the WWTPs and will oversee scheduling, design and construction of future WWTP improvements.

Rhodes and the City of Kingman are discussing the potential inclusion of the City's Downtown WWTP flows into the GV Ranch development. This flow, estimated at up to 250,000 gpd, can be easily incorporated into the development master plan and is currently included in the flow calculations for the 9.4 mgd permanent plant.

Rhodes is providing a WWTP system that meets and exceeds all state and local requirements. Rhodes addresses regional concerns within the service area by treating all sewage from the development at one regional location and by looking to assist the City of Kingman with their wastewater treatment needs.

Introduction

The Mohave County Board of Supervisors approved the Mohave County 208 Area Wide Water Quality Management Plan (208 Plan) in December 2003. This plan addressed the projected County population increases, and associated wastewater treatment needs, between the time the plan was adopted and the year 2050.

Rhodes Homes Arizona (Rhodes) has purchased substantial land holdings in Mohave County in recent years. One of these land holdings include approximately 5,800 acres located in Golden Valley, Arizona, approximately 5 miles west of the western boundary of the City of Kingman. Rhodes plans on developing this property into a residential "destination development" called Golden Valley Ranch (GV Ranch). This development was not incorporated into Mohave County's approved 208 Plan. This parcel of land is delineated in Figure 1, "GV Ranch 208 Plan Service Area and Vicinity Map".

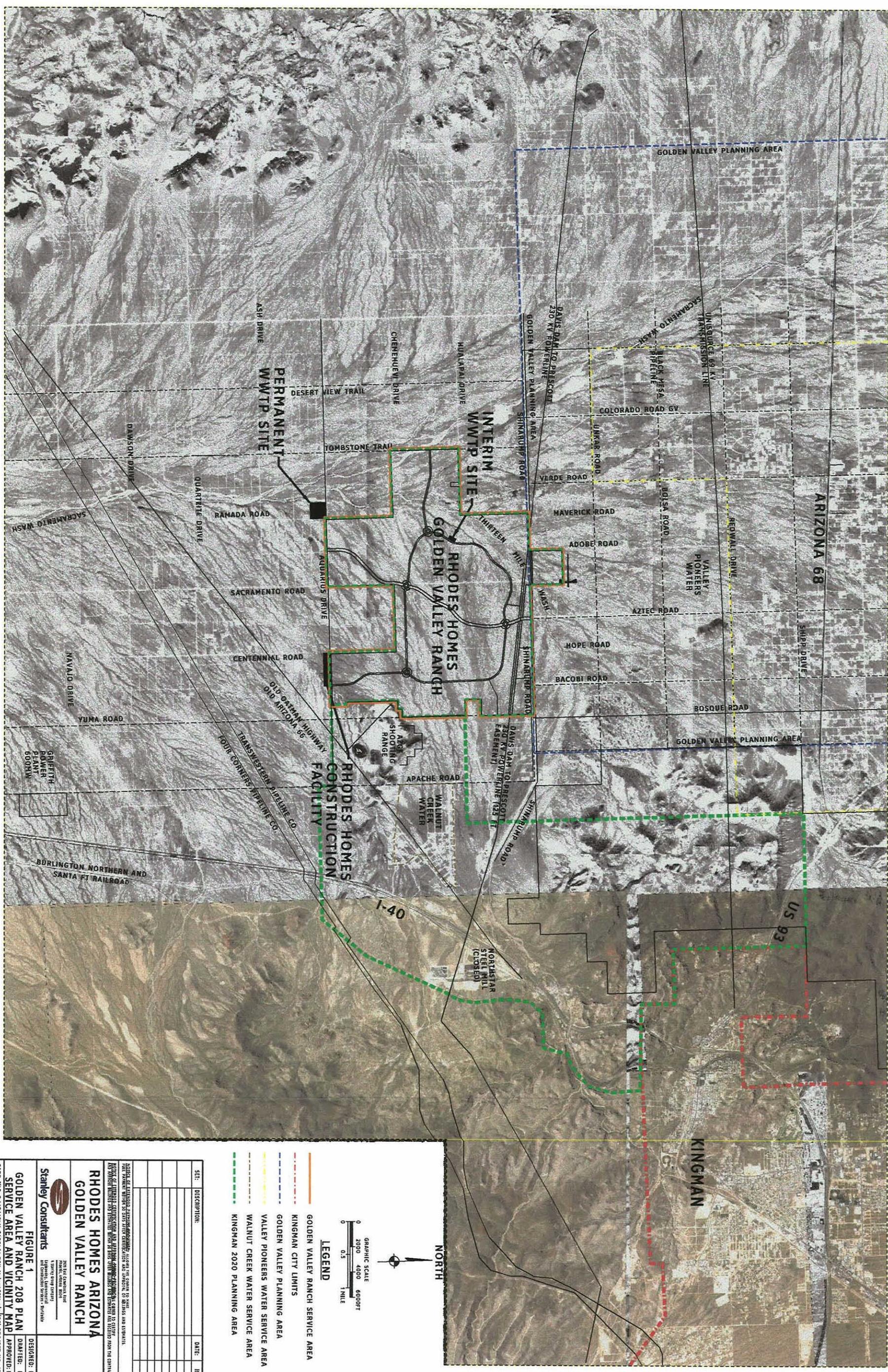
Rhodes has submitted this 208 Plan Amendment for the purpose of incorporating the GV Ranch development into the Mohave County 208 Plan. Details of the development, including project description and phasing, population projections, wastewater flow, treatment and permitting information, project financing, facility design and construction scheduling, and public involvement, are provided herein. In addition, the 208 Plan Amendment Checklist has been provided as Appendix A. This checklist summarizes the response to all required 208 Plan Amendment elements.

Description of Golden Valley Ranch Project

GV Ranch is a mixed use master planned community developed by Rhodes. The GV Ranch service area consists of approximately 5,800 acres of undeveloped land located approximately 5 miles west of the western border of the City of Kingman. These parcels include portions of or all of Sections 2, 3, 4, 8, 9, 10, 11, 14 and 16 of township 20N, range 18W and the southwest quarter of Section 34, township 21N, range 18W of the Gila and Salt River Meridian.

The project is situated within the northern Sacramento Valley. Topography for the area varies from flat to gently rolling hills with an elevation range of approximately 2,410 feet along the west and southwest to approximately 2,670 feet on the eastern edge of the site. Drainage is generally from the northeast to southwest towards the Sacramento Wash, which drains north to south as it runs west of the development. Cerbat Wash, Thirteen Mile Wash and Holy Moses Wash run through GV Ranch prior to draining to Sacramento Wash.

The development characteristic of surrounding land in Golden Valley indicate that the land is subdivided to varying degrees ranging from large tracts (square mile size, unsubdivided) to less than 1 acre lot sizes in such developments as Crystal Springs Estates, Shipp Estates and Friendly Golden Valley. All developed properties are served by on-site septic systems for the treatment of sewage. There are no sewage collection systems or centralized wastewater treatment facilities in the GV Ranch plan area. Black Mountain Prison, approximately 7 miles south of and down gradient of GV Ranch, has an aerated lagoon WWTP in operation. This plant was reviewed for applicability and found to be infeasible for the following reasons:



1. WWTP cannot produce Class A+ effluent for reuse; in fact, an entirely new plant would be required to produce Class A+ effluent.
2. A minimum of 7 additional miles of gravity sewer, a reclaimed water pump station, and a minimum of 7 additional miles of reclaimed water force main would be required to deliver reclaimed water to the golf course.

GV Ranch will be developed with the following development components:

- a mixture of low density, medium density and high density single family residential dwellings totaling approximately 21,000 units
- an active adult segment totaling approximately 12,200 units
- over 200 acres of commercial space
- 1 school
- 18 hole golf course
- Town center with park
- Regional and sub-regional park system

These components are delineated in Figure 2, "GV Ranch Land Use Plan". The project as described above has been submitted for a re-zoning, and is currently under review with the Mohave County Planning and Zoning Department. The project will comply with any and all zoning decisions reached by the Planning and Zoning Department.

The GV Ranch property was located outside the limits of the Kingman 2020 General Plan area until November 7, 2005, when Kingman City Council voted to add this property to their 2020 General Plan area (the minutes of this Council meeting are included as Appendix B).

It is noted that Rhodes and the City of Kingman have entered into negotiations regarding routing of flows from Kingman's Downtown WWTP to the GV Ranch permanent WWTP. Kingman would enter into a service agreement with the Perkins Mountain Utilities Company (PMUC) (see "DPA/DMA Authority" section) to achieve this transfer.

Description of Development Phases

GV Ranch will be developed in multiple phases, in accordance with the demands of the market. The current phasing plan for the development is shown in Figure 3, "GV Ranch Phasing Plan". The first phase will consist of multiple development sub-phases. The first sub-phase includes 600 single family homes, a 650 unit apartment complex primarily reserved for the GV Ranch construction workforce, and an 18-hole golf course. The remainder of Phase 1 includes additional residences and the school. The second phase will consist of the Town Center development and parcels to the east of Town Center. The third phase will consist of development to the west of Town Center. Phases 4-7 will continue the outward expansion of the development away from Town Center.

To expedite development of Phase 1, sub-phase 1, Rhodes proposes to design and construct an interim WWTP. This interim WWTP will provide 240,000 gpd of treatment capacity. As flows increase, a permanent WWTP will be constructed. The permanent WWTP will provide up to 9.4 mgd of treatment capacity. These plants are described in detail in subsequent sections of this plan amendment document.